

10/538,085

REMARKS

**BEST AVAILABLE COPY**

Upon receipt of this response, the Examiner is respectfully requested to contact the undersigned representative of the Applicant to arrange a telephone interview concerning the inventive merits of this application.

Claims 18-21 are objected to and/or rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for the reasons noted in the official action. The rejected claims are accordingly amended, by the above claim amendments, and the presently pending claims are now believed to particularly point out and distinctly claim the subject matter regarded as the invention, thereby overcoming all of the raised § 112, second paragraph, rejections. The entered claim amendments are directed solely at overcoming the raised indefiniteness rejection(s) and are not directed at distinguishing the present invention from the art of record in this case.

Claims 16, 17, 21 and 28 are rejected, under 35 U.S.C. § 102(b), as being anticipated by Straayer '332 while claims 18-30 are rejected, under 35 U.S.C. § 103(a), as being unpatentable over Straayer '332 in view of one of Lidstone '771, Alberto '934, Troeng et al. '828, Fredrickson '996, and/or Andrews '318. The Applicant acknowledges and respectfully traverses the raised obviousness rejection in view of the following remarks.

In the above claim amendments, dependent claims 25- 27 are canceled from this application and that canceled subject matter is incorporated into amended independent claim 16. As claims 25, 26 and 27 were only rejected in view of the combination of Straayer '332 and either Lidstone '771 and/or Andrews '318, following remarks are submitted to address the distinctions between the presently claimed invention and the applied art of Straayer '332 and either Lidstone '771 and/or Andrews '318.

Straayer '332 relates to a portable weeder/cultivator apparatus which has, among other features, a weeder/cultivator element 30. This element 30 comprises a dish shaped element 40

05/25/2006 1:02 PM

- 5 -

10/538,085

**BEST AVAILABLE COPY**

with a flat top wall 41 and a flange 42 which extends from the periphery of the wall 41 outwardly and downwardly therefrom. Generally the weeder/cultivator element 30 has the shape of a somewhat flattened bowl. The Applicant respectfully submits that there are no elements which are in any way disclosed, taught or suggested by Straayer '332 that could reasonably be interpreted or construed to be the equivalent of the tines, as currently claimed. To address this deficiency, the Examiner combines the teachings of Andrews '318 with Straayer '332.

Andrews '318 discloses a cultivator tool which, as illustrated therein, has a blade 18. As seen in the Figures of that reference, the blade 18 has an upper planar portion 26 and end portions 28a, 28b extending therefrom. The upper planar portion 26 is a flat rectangular plate with a first end 26a and a second end 26b. The end portions 28a, 28b are flat rectangular plates (column 4, lines 57-58) that communicate with the flat rectangular planar portion 26 at one of the first or the second ends 26a, 26b. The end portions 28a, 28b are shown as extending from the planar portion either (1) normal to the planar portion 26 (FIG. 6), (2) outwardly at an angle from the planar portion 26 (FIG. 4), and (3) inwardly at an angle from the planar portion 26 (FIG. 5). In view of such disclosure, the Examiner contends the flat rectangular end portions of Andrews '318 constitute cylindrical tines.

In order to address and overcome the above, claims 16, 31 and 32 are amended to more clearly define some of the distinctions between the circular flange formation and the cylindrical tine formations that extend downwardly and inwardly from the periphery of the flange formation. As presently claimed, the cultivator tool 14 has a circular flange formation 50 and a number of tine formations 56. The tine formations are angled inwardly from the base toward the axis of rotation of the flange formation 50. Additionally, each of the tine formations 56 has a curved profile, that is, the base of the tine 56 is curved and fixed to the perimeter of the circular flange formation 50. The tine formations 56 are also curved from the base up to the

05/25/2006 14:11

10/538,085

**BEST AVAILABLE COPY**

peak of each tine, such that when looking at the tine in an elevational view, each tine has a general bell curve shape.

The shape of the tine formations are an important distinction over the cited references as the tines are the portion of the apparatuses that actually come into contact with the weeds and/or ground and performs the actual tilling. Contrary to the Examiner's allegation, the tine formations of Andrews '318 are, in fact, linear in the plane of the flange formation and not curved as would be required if they were cylindrical tines as with the presently claimed invention.

Furthermore, the cultivator tool of Andrews '318 is intended to rotate about a horizontal axis. As such, the rectangular planar portion and the flat tine formations will have a tendency to chop into the ground, as the cultivator tool rotates. If, as with the present invention, the planar portion was circular and the tine formations cylindrical, the tine formations would merely meet the ground at a tangent angle and provide minimal penetration into the ground.

In clear distinction, the cultivator tool according to the present invention is intended to rotate about a vertical axis, the inwardly angled cylindrical tines digging into the ground while reducing the amount of soil being scattered outwardly by the rotating tines. Moreover, the rotating inwardly directed tines reduce the risk of damage to the base of any plant roots thereby allowing the cultivator to be used closer to the plants. The cylindrical tines also reduce the risk of the tool jamming on any object such as a tree, a shrub or roots—because of the curved profile, the tool has a tendency to simply bounce or slide off such obstruction. Similarly, the tool will have a tendency to avoid jamming on any rock, pathway, etc. The Applicant consequently believes that the cylindrical tines, according to the presently claimed invention, offer a significant advantage over similar devices having tines or cutting faces with either pointed or straight edges, or with any leading edge extending vertical to the direction of travel.

6/23/06 -1:53 PM

- 7 -

10/538,085

**BEST AVAILABLE COPY**

In the circumstances, the Applicant believes that the invention claimed in the amended claim 16 is clearly distinguished from and patentable over all of the cited prior art, including Andrews '318. Moreover, as a cylindrical tine would not work when rotating about a horizontal axis, the Applicant believes that it would not be obvious for Andrews '318 to be modified to utilize cylindrical tines, as alleged by the Examiner.

In order to emphasize the above noted distinctions between the presently claimed invention and the applied art, independent claim 16 of this application now recite the features of "the cultivator tool (14) comprises a circular flange formation (50) with cylindrical tine formations (56) being provided at angularly spaced locations about an outer periphery of the flange formation (50), and the tine formations (56) being angled inwardly from the periphery of the flange formation (50) towards an axis of rotation of the flange formation (50)".

In addition, new independent claim 31 further recites the features of "the circular flange formation (50) and the plurality of cylindrical tine formations (56) forming a continuous undulating tilling edge with a free end of each of the plurality of cylindrical tine formations (56) forming a rounded tilling edge, comprising a portion of the continuous undulating tilling edge" while new independent claim 32 further recites the features of "and opposed sides of each of the cylindrical tine formations (56) forming curved side tilling edges". The above newly entered features are believed to clearly and patentably distinguish the presently claimed invention from all of the art of record, including the applied art of Straayer '332, Lidstone '771 and/or Andrews '318.

If any further amendment to this application is believed necessary to advance prosecution and place this case in allowable form, the Examiner is courteously solicited to contact the undersigned representative of the Applicant to discuss the same.

In view of the above amendments and remarks, it is respectfully submitted that all of the raised rejection(s) should be withdrawn at this time. If the Examiner disagrees with the

05/25/2006 12:13 PM

- 8 -

**BEST AVAILABLE COPY**

10/538,085

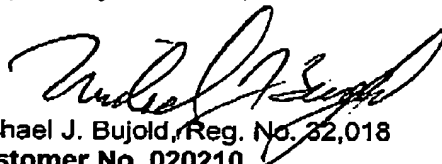
Applicant's view concerning the withdrawal of the outstanding rejection(s) or applicability of the Straayer '332, Lidstone '771, Alberto '934, Troeng et al. '828, Fredrickson '996 and/or Andrews '318 references, the Applicant respectfully requests the Examiner to indicate the specific passage or passages, or the drawing or drawings, which contain the necessary teaching, suggestion and/or disclosure required by case law. As such teaching, suggestion and/or disclosure is not present in the applied references, the raised rejection should be withdrawn at this time. Alternatively, if the Examiner is relying on his/her expertise in this field, the Applicant respectfully requests the Examiner to enter an affidavit substantiating the Examiner's position so that suitable contradictory evidence can be entered in this case by the Applicant.

In view of the foregoing, it is respectfully submitted that the raised rejection(s) should be withdrawn and this application is now placed in a condition for allowance. Action to that end, in the form of an early Notice of Allowance, is courteously solicited by the Applicant at this time.

The Applicant respectfully requests that any outstanding objection(s) or requirement(s), as to the form of this application, be held in abeyance until allowable subject matter is indicated for this case.

In the event that there are any fee deficiencies or additional fees are payable, please charge the same or credit any overpayment to our Deposit Account (Account No. 04-0213).

Respectfully submitted,



Michael J. Bujold, Reg. No. 32,018

Customer No. 020210

Davis & Bujold, P.L.L.C.

Fourth Floor

500 North Commercial Street

Manchester NH 03101-1151

Telephone 603-624-9220

Facsimile 603-624-9229

E-mail: patent@davisandbujold.com

62506-1-03 PM

- 9 -